

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

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DAS

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9-89

SEP 22 2011

DQA: _____ Date: _____



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OTHER : _____					

Work Order ID 149433

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149433

Page 3

Item ID: D2804-2

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Bracket

Start Date: 9/14/2016 Start Qty: 11.00

11

Cust Item ID:

Required Date: 9/27/2016 Req'd Qty: 11.00

11

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160

Identify as per dwg & Stock Location: w/o

0.00

160

Packaging

Memo

0.02

Packaging

170

QC21- Final Inspection - Work Order Release

0.00

170

QC

Memo

0.18

Quality Control

11X 16/09/12 DAS 36 9-89DAS
21
9-89SEP 26 2016DAS
21
9-89SEP 26 2016

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Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	OTHER : _____			

Picklist Print

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Page 1

Work Order ID: 149433

149433

Parent Item: D2804-2

D2804-2

Parent Item Name: Bracket

Start Date: 9/14/2016

Required Date: 9/27/2016

Start Qty: 11.00

Required Qty: 11.00

Comments: IPP A00.11.06New IssueEC
IPP B06.05.30 Blanks on wjetEC
IPP Rev:C As per Rev C 06-11-09 JLM
IPP Rev:D Removed Tumbling 08-09-10 JLM Verified By:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

M6061T6B0.500X10.00
0

Purchased No

f 25.7000

8.25
14.66

M6061T6B0 500X10.00

6061-T6 Bar .500 x 10.00

**

2116/08/23

~~X 12.00~~
X 10.00
X 12.00

Location

Loc Qty

Loc Code

MAT 1.7
M131700 1.7
MAT001 24
M134984 24

135377
128866

12.5
2.5

12.5

DQA: _____ Date: _____



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Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
				Completed By					
				Lead hand / Supervisor Approval Verification					
				QC / QA Coordinator Approval					

Root Cause				FAULT CATEGORY			
Environment ☐	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐
Design ☐	☐	Operator	☐	Bending	☐	Set-up	☐
Doc/Data ☐	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐
Equip/Tooling ☐	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre ☐	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material ☐	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
Internal Transport ☐	☐	Poor Information	☐	Crushing	☐	Countersink	☐
Tribal Knowledge ☐	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐
LOA ☐	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Substation ☐	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐
Past Expiry Date ☐	☐	Manufacturing Process	☐	OTHER : _____			
Misidentified ☐	☐	Past Due	☐				

DART AEROSPACE LTD		Work Order:	149433
Description: STA 155 Bracket		Part Number:	D2804-2
Inspection Dwg: D2804	Rev: C	Page 1 of 1	

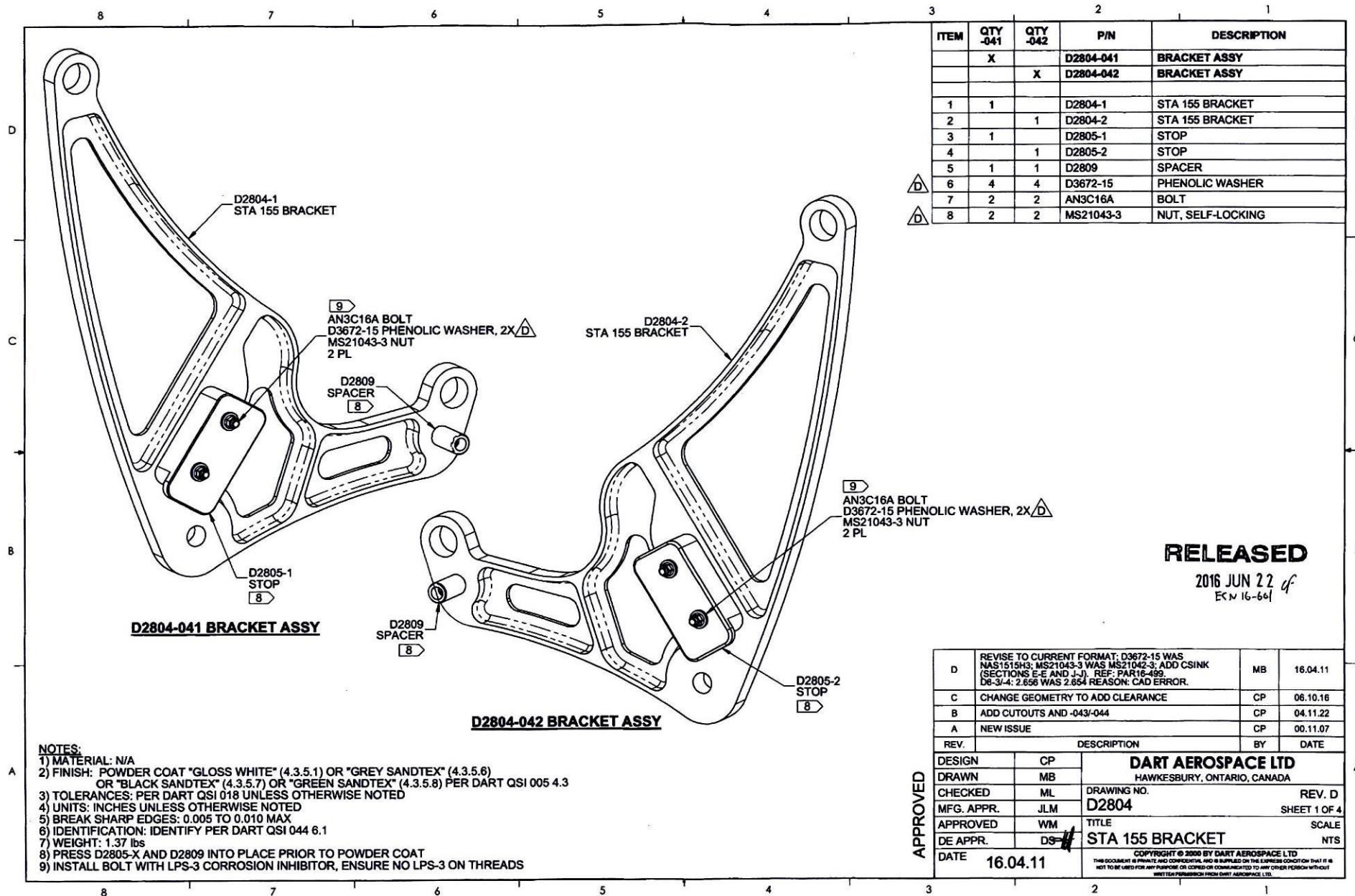
FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.125	+/-0.010	.125	/		Vern LP09	
0.125	+/-0.010	.124	/		↓	
R0.125	+/-0.010	.125	/		Rad gage	
0.250	+/-0.010	.250	/		Vern LP09	
0.250	+0.000/-0.005	.2475	/		Depth Mic LP-07	
0.875	+0.000/-0.001	.874	/		gage Pin	
R0.062	+/-0.010	.062	/		Rad gage	
Ø0.757	+0.005/-0.000	.757	/		gage Pin	
R0.625	+/-0.010	.625	/		Vern LP09	
12.304	+/-0.005	12.304	/		Height gage	
Ø0.507	+0.000/-0.001	.506	/		gage Pin	
0.437	+0.000/-0.001	.437	/		Height gage	
0.608	+0.000/-0.001	.608	/		↓	
Ø0.191	+0.005/-0.000	.190	/		gage Pin	
1.420	+0.001/-0.001	1.420	/		Height gage	
0.250 deep	+/-0.010	.251	/		Depth Mic LP-07	
6.933	+/-0.005	6.933	/		Height gage	
7.578	+/-0.005	7.578	/		↓	
0.500	+/-0.010	.497	/		Vern LP09	
0.385 x 1000	± 0.010	0.380	/		Caliper	JCL-08

Measured by:	J 16-09-18	Audited by:	DAS 44 9-89	Prototype Approval:	N/A
Date:	16-09-20	Date:	16-09-21	Date:	N/A

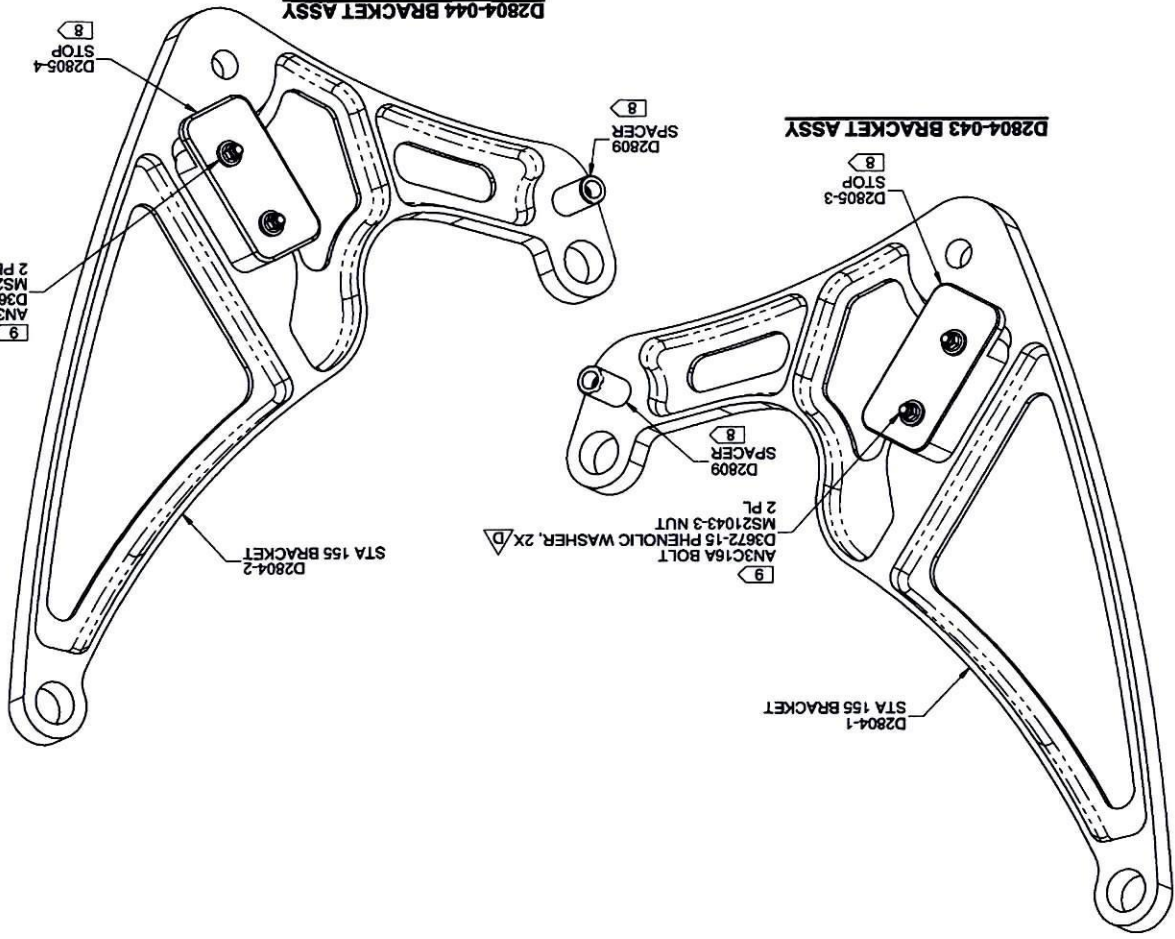
Rev	Date	Change	Revised by	Approved
A	04.12.10	New Issue	KJ/JLM	
B	05.04.25	Added 0.500 dimension	KJ/JLM	
C	06.11.10	Revised per drawing revision C	KJ/JLM	



- NOTES:
- 1) MATERIAL: N/A
 - 2) FINISH: POWDER COAT "GLOSS WHITE" (4.3.5.1) OR "GREY SANDTEX" (4.3.5.6) OR "BLACK SANDTEX" (4.3.5.7) OR "GREEN SANDTEX" (4.3.5.8) PER DART QSI 005 4.3
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: IDENTIFY PER DART QSI 044 6.1
 - 7) WEIGHT: 1.37 lbs
 - 8) PRESS D2805-X AND D2809 INTO PLACE PRIOR TO POWDER COAT
 - 9) INSTALL BOLT WITH LPS-3 CORROSION INHIBITOR, ENSURE NO LPS-3 ON THREADS

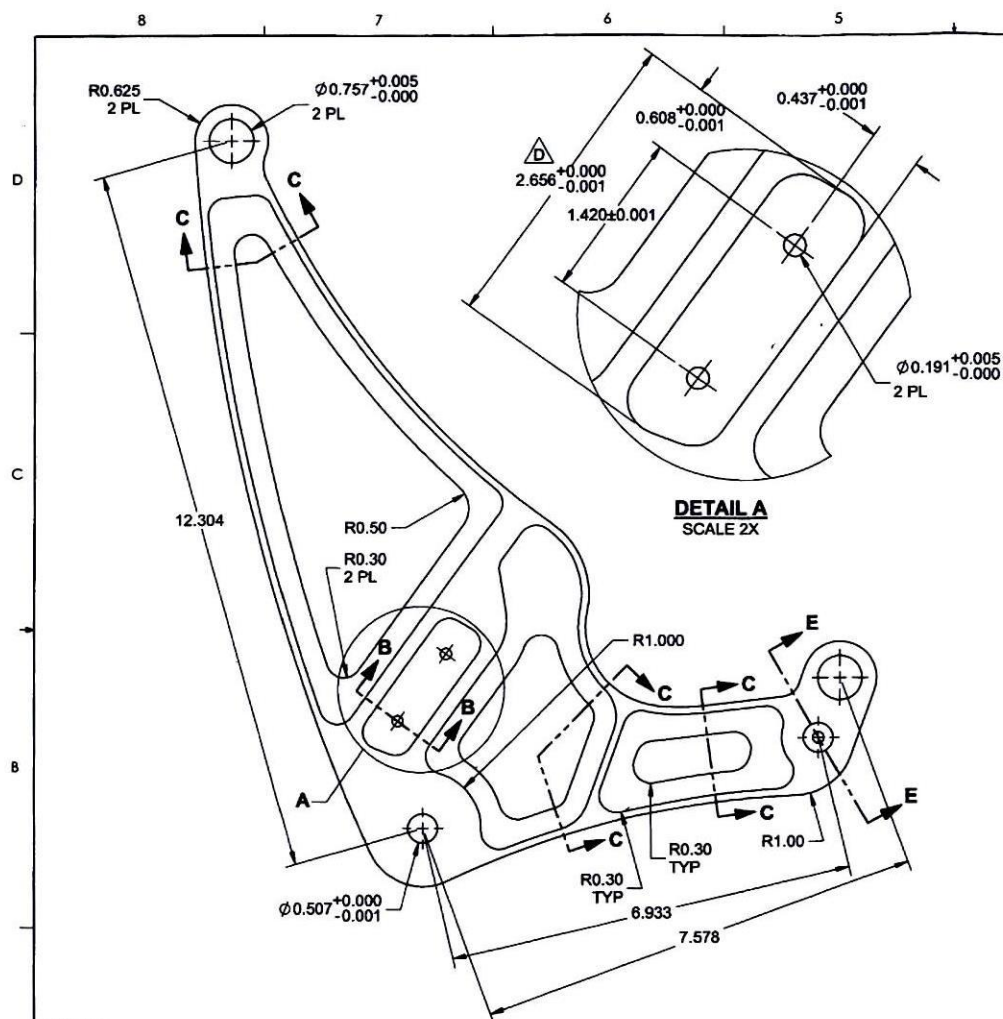
APPROVED

DESIGN	CP	DART AEROSPACE LTD	DRAWING NO.	D2804	REV. D	SHEET 2 OF 4	SCALE	NTS	DATE	16.04.11
DRAWN	MB	HAWKESBURY, ONTARIO, CANADA	TITLE	STA 155 BRACKET	DE APPR.	DS	COPYRIGHT © 2006 BY DART AEROSPACE LTD			
CHECKED	ML				APPROVED	WM	THIS DOCUMENT IS PRELIMINARY AND NOT TO BE USED FOR FABRICATION OR CONSTRUCTION OF ANY OTHER PERSON WITHOUT THE WRITTEN PERMISSION FROM DART AEROSPACE LTD			
MFG. APPR.	JLM									

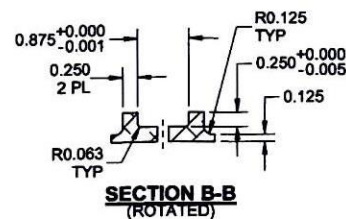


RELEASED
2016 JUN 22

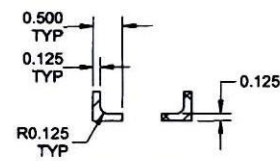
ITEM	QTY	QTY	P/N	DESCRIPTION
D2804-043	X			BRACKET ASSY
D2804-044	X			BRACKET ASSY
D2804-1	1	1		STA 155 BRACKET
D2804-2	1	1		STA 155 BRACKET
D2805-3	1	1		STOP
D2805-4	1	1		STOP
D2809	1	1		SPACER
D3672-15	4	4		PHENOLIC WASHER
AN3C16A	2	2		BOLT
MS21043-3	2	2		NUT, SELF-LOCKING



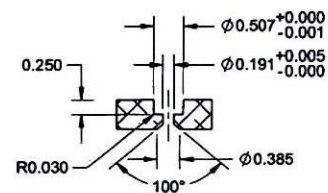
DETAIL A
SCALE 2X



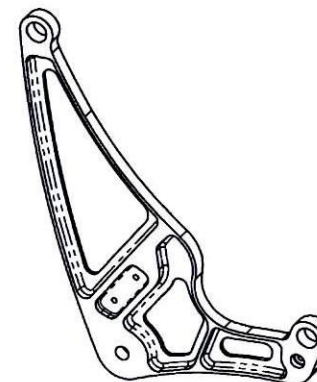
SECTION B-B
(ROTATED)



SECTION C-C
(ROTATED)



SECTION E-E
(ROTATED)



D2804-1 STA 155 BRACKET

RELEASED

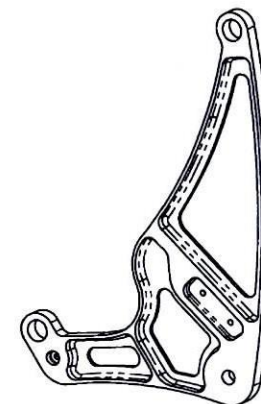
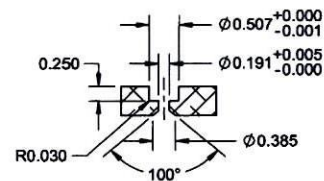
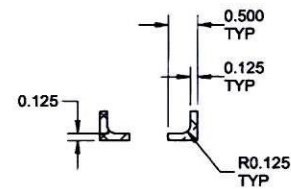
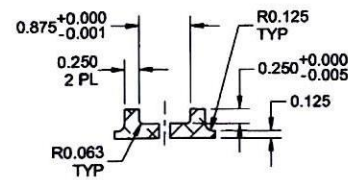
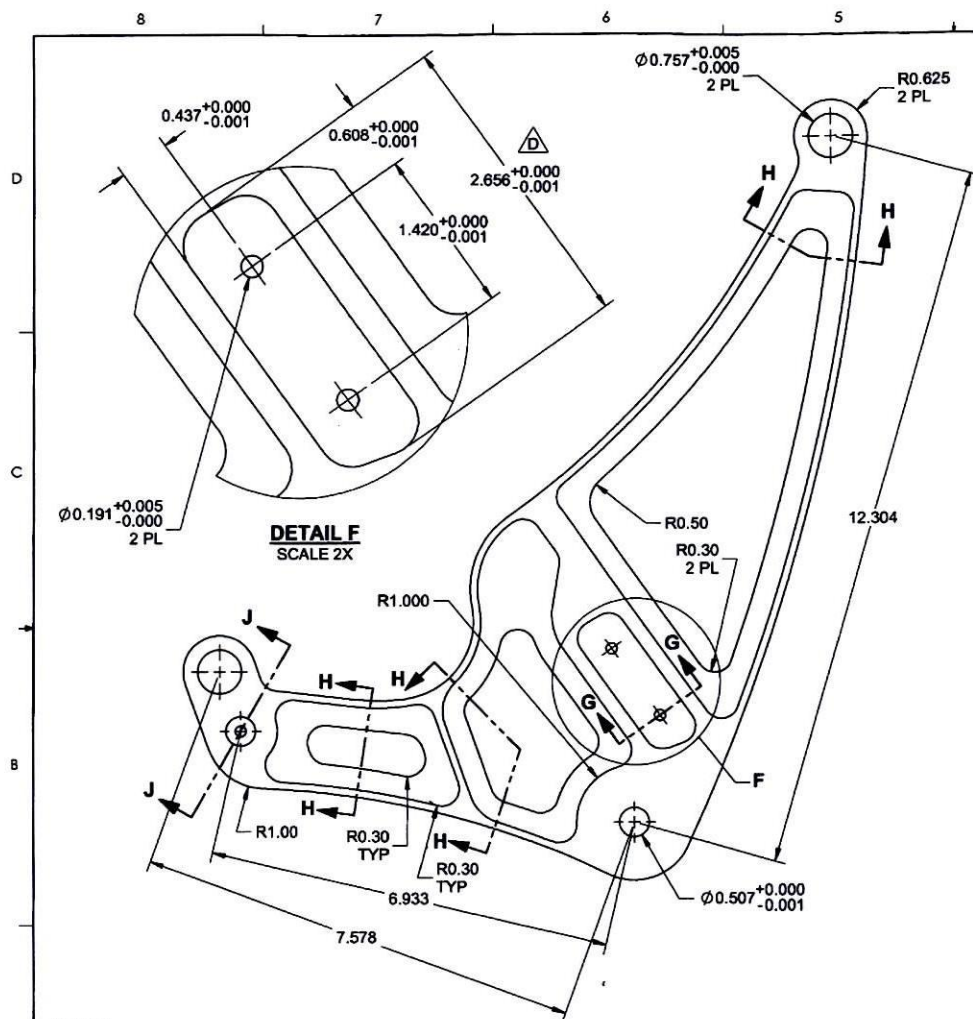
2016 JUN 22 q7

NOTES:

- 1) MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-225/8 (OR AMS 4117/4128/4115/4116) OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160) OR ASTM B211 OR ASTM B221
REF. DART SPEC. M6061T6B
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: R0.030 TO 0.063 ON ALL EDGES
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 1.01 lbs
- 8) MACHINE PER PART FILE D2804-1_REV.D.SLDPRT

APPROVED

DESIGN	CP	DART AEROSPACE LTD	
DRAWN	MB	HAWKESBURY, ONTARIO, CANADA	
CHECKED	ML	DRAWING NO.	REV. D
MFG. APPR.	JLM	D2804	SHEET 3 OF 4
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	STA 155 BRACKET	NTS
DATE	16.04.11	COPYRIGHT © 2009 BY DART AEROSPACE LTD	
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D2804-2 STA 155 BRACKET

RELEASED

2016 JUN 22 *q*

NOTES:

- 1) MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-225/8 (OR AMS 4117/4128/4115/4116) OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160) OR ASTM B211 OR ASTM B221
REF. DART SPEC. M6061T6B
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: R0.030 TO 0.063 ON ALL EDGES
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 1.01 lbs
- 8) MACHINE PER PART FILE D2804-1_REV.D.SLDPRT

APPROVED

DESIGN	CP	DART AEROSPACE LTD	
DRAWN	MB	HAWKESBURY, ONTARIO, CANADA	
CHECKED	ML	DRAWING NO.	REV. D
MFG. APPR.	JLM	D2804	SHEET 4 OF 4
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	STA 155 BRACKET	NTS
DATE	16.04.11	COPYRIGHT © 2000 BY DART AEROSPACE LTD	
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